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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/723,934
Filing Date: November 25, 2003
Appellant(s): BITZER ET AL.

Clifford A. Ulrich
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 24 March 2008 appealing from the Office action mailed 22 February 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

DE 4,314,432 A1	German Patent	11-1994
EP 976,795 A2	European Patent	02-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 2-10, 12-17, 27 and 31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant provides no guidance as to the grain size encompassed by the limitation of "substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks". It is not clear as to whom one of ordinary skill in the art is supposed to be as it is not clear as to whether or not the level of skill is to one in the braking art or the lacquer art. The specification provides no guidance as to the grain size of the protective substances used that are within the scope of the invention. Applicant is claiming a composition by properties which would depend on the average grain size of the particular braking system utilized and would require undue experimentation to determine the scope of the claim. One cannot determine what size is within the scope of the claim and therefore one cannot ascertain

what grain size would infringe on the instant claim and accordingly an accurate comparison of the prior art with the instant claims cannot be performed.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-10, 12-17, 27 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the independent claims it is unclear as to the grain size encompassed by the phrase "substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks". The claim is drawn to a composition and is not clear as to the type of brake encompassed by the claim. Applicant should refer to the 112 first paragraph rejection for more details. Further it should be noted that "An article characterized by physical properties alone and no specific composition is vague and indefinite". See Ex parte Slob 157 USPQ 172.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 2-4, 10, 12-14, 17, 27 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent Specification No. DE 4314432.

The instant claims are met by the reference. It is the position of the examiner that the inorganic zinc compound meets applicants protective substance that reacts with oxygen. Note page 2 of the reference, lines 46-47, which recite the types of inorganic zinc compounds utilized. With respect to claim 27 while the reference does not recite that the lacquer is non-tinted or tinted, it is the position of the examiner that it would have to be one or the other as lacquers are either clear or tinted absent evidence to the contrary. Furthermore it is believed that the presence of the zinc compound would tint the lacquer absent evidence showing otherwise. As for the grain size, it is the position of the examiner that absent evidence showing otherwise the grain size of the reference meets the instantly claimed grain size especially since the composition of the reference is used for the same purpose. Thus the instant claims are met by the reference.

Claims 2-7, 10, 12-17, 27 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by European Patent Specification No. 976,795 for the reasons set forth in the previous office action and which are herein incorporated by reference.

The reference leaches, in the abstract, the examples and the claims, an antifriction coating comprising a lubricant, corrosion inhibitor and solvent. The composition may be used to treat brake rotors and drums (abstract).

The instant claims are met by the reference. It is the position of the examiner that the coating of the reference can broadly be considered to be a "lacquer" absent evidence to the contrary as one definition of the term "lacquer" is known in the art to represent "any of various clear or colored synthetic organic coatings that typically dry to

form a film by evaporation of the solvent". The corrosion inhibitor is selected from aluminum particles, zinc particles and a metal phosphate which meets the protective substance of instant claims 2-3 and 11-13 and possesses a grain size of 5 to 20 microns. As for the amount of protective substance (instant claims 4-6 and 14- 16) the claims recite that the amount ranges from 40 to 65% (with the solvent (i.e. claim 5 of the reference)) or 70-80% after curing (i.e. without the solvent (claim 9 of the reference)). As for claim 27 the examples teach the addition of pigments thus meeting this claim. As for the grain size, it is the position of the examiner that absent evidence showing otherwise the grain size of the reference meets the instantly claimed grain size especially since the composition of the reference is used for the same purpose. Thus the instant claims are met by the reference.

(10) Response to Argument

A. Rejection of Claims 2 to 10, 12-17, 27 and 31 under 35 USC §112, first paragraph

Applicant argues that the claims are enabled as one of ordinary skill in the art would not have to unduly experiment to determine the maximum roughness, average pore diameter, and average grain size of score marks on the surface of brake disks and brakes drums including those used in cars, trucks, and heavy machinery as one could photograph or otherwise image the surface of a brake disk or brake drum throughout its life as it is cycled through known usage conditions and then to circumscribe and calculate the areas of pores and scores in the surface so as to arrive at a maximum roughness, an average pore diameter etc. using for example available computer programs. Applicant then argues that in view of In re Wands it is improper to conclude

that the enablement requirement is not satisfied based on the analysis of only one of the foregoing factors while ignoring one or more of the others. That is, a proper analysis must consider all the evidence related to each of these factors and any conclusion of non-enablement must be based on the evidence as a whole.

To these arguments the examiner respectfully disagrees as it is unclear as to the types of brakes encompassed by the claims (i.e. automobile, heavy machinery, trucks etc.) and it is unclear as to whether or not the composition is for application to new brakes or brakes that have been already used or are under use as the average grain size that is substantially equal to at least one of a maximum roughness, an average pore diameter and an average grain size of score marks of the braking surface would depend on the type of brake, its conditions of use etc. and therefore it would require undue experimentation to determine what the average grain size of the protective substance is supposed to be. Applicant's arguments are based on unrecited comparisons. The specification provides no guidance as to the grain size of the protective substances used that are within the scope of the invention. Applicant is claiming a composition by its properties which renders the claims not enabled as the exact grain size of the composition would depend on the average grain size of the particular braking system utilized and when it is applied to the braking system (i.e. to brand new brakes, brakes that are slightly worn etc.) and would require undue experimentation to determine the scope of the claim. One cannot determine what size is within the scope of the claim and therefore one cannot ascertain what grain size would infringe on the instant claim and accordingly an accurate comparison of the prior art with

the instant claims cannot be performed. Applicant states that one may photograph or image the surface of the brake and then use a computer program to determine the result however nowhere is this even mentioned or suggested by the specification therefore one cannot ascertain how to determine the average grain size etc. and therefore it is believed that the claims fail to comply with the enablement requirement.

With respect to applicant's arguments concerning the fact that since the factors set forth *In re Wands* for determining whether any experimentation may be undue have not been met there is no undue experimentation, the examiner offers the following analysis:

(1) Breadth of the claims: The claims are extremely broad in that they only recite the properties possessed by the protective substance as they fail to recite a specific composition that possesses the claimed properties. There are numerous types of materials that may be utilized to produce corrosion coatings for brake surfaces such as various oxide materials, as well as numerous types of braking surfaces such as braking surfaces for automobiles, trucks, heavy materials, braking surfaces that are new, in use and those that have worn surfaces.

(2) Nature of the invention: The claimed invention is directed to a corrosion protective lacquer for producing a corrosion protective coating composition for a braking surface said lacquer comprising a protective substance possessing specific properties.

(3) The State of the art: In the prior art compositions for providing corrosion protective coatings for braking surfaces are known. Also known are numerous types of braking surfaces.

(4) The level of one or ordinary skill: Although a person of ordinary skill in the art would recognize the types of various materials that may be utilized as corrosion materials for braking surfaces and would recognize the many types of braking surfaces, absent more information on the grain sizes that are useable in the instant invention even a highly skilled artisan would not immediately be expected to recognize exactly what is meant by the broad recitation of “average grain size that is substantially equal to at least one of a maximum roughness, average pore diameter, and an average size of score marks of the braking surface of the at least one of the brake disk and the brake drum”.

(5) The level of predictability in the art: Although there is some inherent predictability in the types of materials that may be useable as corrosion protection coating substances and the grain size of the materials useable and the types of known braking surfaces, it is completely dependent on the specific structure of the braking surface. Absent an exact characterization of the nature of the materials utilized or the types of braking surfaces, the skilled artisan will not be directly led to what can and cannot be predictably utilized in the invention. That is, it is predictable if guidance is given in the specification, i.e. the types of brake, how it is used etc. without this information one cannot adequately predict the exact compositions that are encompassed by the claim terminology and therefore the exact scope of the claim is unascertainable.

(6) The amount of direction provided by the inventors: The instant disclosure provides guidance as to the types of materials that may be utilized as the corrosion

protective substance (i.e. various metals, metal compounds such as oxides, phosphates or phosphorus). No other information is presented that would provide the skilled artisan the additional information required about the grain sizes that are encompassed by the claim or the types of braking surfaces that are encompassed such as automobiles, heavy machinery etc, whether the composition is for braking surfaces that are worn or are under use etc. or are new.

(7) The existence of working examples: The instant disclosure provides no working examples which explain how to determine the average grain size or as to the types of braking surfaces that are encompassed by the claims.

(8) The quantity of experimentation needed to make or use the claimed subject matter based on the content of the disclosure: Although a person of ordinary skill in the art would recognize the types of materials that may be utilized to form the corrosion protective composition, absent more information on the nature of the braking surfaces envisioned or on the grain size possessed by the protective substance, even a highly skilled artisan would not immediately be expected to recognize what is meant by the broad recitation of “has an average grain size that is substantially equal to at least one of a maximum roughness, average pore diameter, and an average size of score marks of the braking surface of the at least one of the brake disk and the brake drum”.

As a result, the quantity of experimentation required of a person having ordinary skill in the art would be undue in the absence of further guidance. The artisan would be presented with a myriad of substances composed of a myriad of grain sizes and a

myriad of braking surfaces, and this would result in an excessive amount of experimentation to determine the scope of the instantly claimed invention.

Accordingly it is the position of the examiner that the claims fails to comply with the enablement requirement of 35 USC §112, first paragraph.

B. Rejection of Claims 2 to 10,12-17, 27 and 31 under 35 USC §112, second paragraph

Applicant argues that the claims comply with the definiteness requirement as there is nothing unclear about the phrase "substantially equal to at least one of a maximum roughness, an average pore diameter and an average size of score marks" as the phrase is clear irrespective of the type of brake used. Applicant also argues that the reference to Ex parte Slob is entirely misplaced at the lacquer is not characterized simply by properties as one skilled in the art would have an understanding as to the composition of the claimed lacquer which therefore need not be specifically recited in the claims.

It is the position of the examiner that the phrase is unclear based on the reasoning set forth in the 35 USC §112, first paragraph rejection as the claim is drawn to a composition and is not clear as to the type of brake encompassed by the claim and therefore one cannot ascertain the grain size that is encompassed by the claim and accordingly the claim is vague and indefinite and therefore fails to meet the requirements of 35 USC §112, second paragraph. As for the reference to Ex parte Slob it is believed that this is indeed proper as the protective substance is only characterized by its properties, it does not recite the types of materials or the respective grain sizes that are encompassed by the phrase "substantially equal to at least one of a maximum

roughness, an average pore diameter and an average size of score marks" and therefore the scope of the claim is unascertainable and accordingly the reference to Ex parte Slob is not misplaced and is therefore proper.

C. Rejection of Claims 2 to 4, 10, 12-14, 27 and 31 under 35 USC §102(b) over DE 4,312,432

Applicant argues that the instant claims are not anticipated by DE 4,312,432 as the reference does not disclose or even suggest a protective substance having an average grain size that is substantially equal to at least one of a maximum roughness, average pore diameter, and an average size of score marks of a braking surface of at least one of a brake disk and a brake drum, as required by the claims as the reference merely discloses the use of an inorganic zinc compound and does not disclose the particle or grain size of the inorganic zinc compound. Applicant further argues that since the reference does not disclose the grain size of the inorganic zinc compound that the examiner has not met the burden of a prima facie case of anticipation and the silence of the grain size cannot be properly interpreted as disclosing every possible grain size and that it is inappropriate to assume that just because both compositions are used for the same purpose that they would have inherently have the claimed size.

To these arguments the examiner respectfully disagrees as it is the position of the examiner that the grain size of the reference is inherently one that is substantially equal to at least one of a maximum roughness, average pore diameter, and average size of score marks as the composition is used for the same purpose and applicant has not provided any evidence showing that the average grain size of the reference does not meet these limitations particularly in view of the fact that the instant claims do not

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recite a specific size that is intended to be encompassed by the claim limitation. It is unclear as to how applicant can argue that the grain size is not inherently possessed by the composition of the reference especially since no specific grain size is recited in the instant claims. One would expect that since the composition is used for the same purpose that it would inherently possess the same properties. That is, since the composition is used for brake linings it would inherently possess a grain size that encompasses that which is instantly claimed as it is believed that the composition would have to possess a grain size that encompasses that which is instantly claimed in order to adequately provide corrosion protection for the braking surface absent evidence to the contrary. Again it should be stressed that it is unclear as to how applicant can argue that the grain size is not inherently possessed by the composition of the reference when no specific grain size is recited in the instant claims. Accordingly applicant has not provided any convincing evidence that the composition does not inherently possess the claimed grain size.

D. Rejection of Claims 2 to 7, 10, 12-17, 27 and 31 under 35 USC §102(b) over EP 976,795

Applicant argues that the instant claims are not anticipated by EP 976,795 as the reference does not disclose or even suggest a protective substance having an average grain size that is substantially equal to at least one of a maximum roughness, average pore diameter, and an average size of score marks of a braking surface of at least one of a brake disk and a brake drum, as required by the instant claims. Applicant further argues that the final office action does not provide any support for its position that the grain size of the reference is inherently one that meets the limitations of the instant

claims and that it is inappropriate to assume that just because both coatings are used to coat brakes that they necessarily have the same grain size.

To these arguments the examiner respectfully disagrees as it is the position of the examiner that the grain size of the reference is inherently one that is substantially equal to at least one of a maximum roughness, average pore diameter, and average size of score marks as the composition is used for the same purpose and applicant has not provided any evidence showing that the average grain size of the reference does not meet these limitations particularly in view of the fact that the instant claims do not recite a specific size that is intended to be encompassed by the claim limitation. It is unclear as to how applicant can argue that the grain size is not inherently possessed by the composition of the reference especially since no specific grain size is recited in the instant claims. One would expect that since the composition is used for the same purpose that it would inherently possess the same properties. That is, since the composition is used for brake linings it would inherently possess a grain size that encompasses that which is instantly claimed as it is believed that the composition would have to possess a grain size that encompasses that which is instantly claimed in order to adequately provide corrosion protection for the braking surface absent evidence to the contrary. Again it should be stressed that it is unclear as to how applicant can argue that the grain size is not inherently possessed by the composition of the reference when no specific grain size is recited in the instant claims. Accordingly applicant has not provided any convincing evidence that the composition does not inherently possess the claimed grain size.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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TQAS, TC 1700